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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,719	03/19/2001	Katsuaki Abe	1743/179	9475

23838 7590 02/25/2004

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EXAMINER	
JOHNSTON, PHILLIP A	

ART UNIT	PAPER NUMBER
2881	

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/811,719	ABE ET AL.	
	Examiner	Art Unit	
	Phillip A Johnston	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Detailed Action

1. This Office Action is submitted in response to RCE / Amendment dated 1-13-2004, wherein Claims 1 and 8 are amended.

Claims Rejection – 35 U.S.C. 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8, are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,259,960, to Inokuchi.

Inokuchi (960) clearly discloses, that when an inspected part should be reviewed by the use of the review SEM, the sample stage (not shown) of the review SEM is set on the part. Then, the initial magnification of the review SEM is set to 3000X, for example. Information (hereinafter referred to as the "optical inspection information") about the positions and sizes of foreign materials or defects previously obtained by the optical foreign material-inspecting apparatus 01 or the defect-inspecting apparatus 02 is read into the SEM EWS. At this time, images shown in FIGS. 73A and 73B (below)

are displayed on the display device DE connected with the SEM EWS.

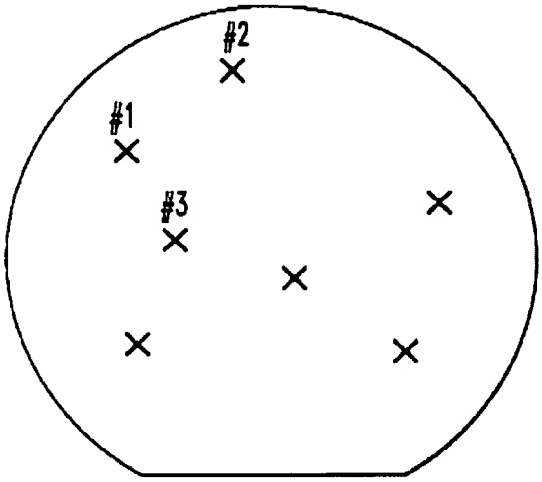

FIG. 73A
PRIOR ART

	(X, Y)	SIZE	
#1	(,)		
#2	(,)		
#3	(,)		
⋮	⋮		

FIG. 73B
PRIOR ART

The operator watches the images of FIGS. 73A and 73B, lists the numbers given to foreign materials or defects that might adversely affect the quality of the inspected part, and manually specifies the numbers given to the foreign material or defect that he or she wants to review. See Column 3, line 9-24.

It is implied herein that both images (FIGS. 73A and 73B) are displayed at the same time on the display device DE, which is equivalent to simultaneously displaying the coordinates of the faults and/or objects, and there vicinity field, as recited in Claims 1 and 8.

Inokuchi (960) also discloses that the sample stage of the review SEM is moved according to the information about the position of the foreign material or defect bearing the specific number. The inspected part is moved so that an SEM image of the specified foreign material or defect is displayed in the middle of the display device D.

Then, an electron microscope image of the foreign material or defect specified by the review SEM is displayed on the display device D. At this time, if the position of the foreign material or defect found by the preliminary inspection using an optical microscope agrees with the coordinates of the foreign material or defect on the inspected part set on the sample stage of the review SEM, then it follows that the specified foreign material or defect is displayed in the center of the display device D. If they do not agree, it is necessary to correct the X- and Y-coordinates of the sample on the sample stage of the review SEM.

Generally, the position of the foreign material or defect found by the preliminary inspection using an optical microscope deviates from the coordinates of the foreign material or defect on the inspected part set on the sample stage of the review SEM. Therefore, the specified foreign material or defect is not first displayed in the center of the display device D. Normally, as shown in FIG. 74A, the foreign material or defect is displayed off the center of the viewing screen of the display device D. For example, the magnification of the foreign material or defect shown in FIG. 74A is 3000X. Where the image is magnified at such a magnification (say, 1000Xor 3000X) while the foreign material or defect is off the center of the viewing screen, the magnified foreign material or defect is outside the viewing screen and hence impossible to observe. Therefore, where the foreign material or defect is magnified at a high magnification for observation, it is necessary to bring the displayed foreign material or defect in the center of the viewing screen of the display device D. See Column 3, line 25-61.

Inokuchi (960) further discloses that the review SEM can automatically move the selected defects into a review position according to information about the positions of the defects to be reviewed, the information being contained in the preliminary inspection information. The dimensions of inspected parts taken in the direction of thickness can be automatically calculated. The deviation of the center position of a defect in the review position from the center of the microscope image is measured. The defect can be automatically moved into the center of the microscope image. Column 6, line 45-59.

Inokuchi (960) still further discloses that when a wafer is inspected for defects, preliminary inspection information about the inspected wafer is read into the review SEM from the DIFS server 3 via the engineering workstation, the preliminary inspection information being obtained by inspections performed by the foreign material-inspecting apparatus 1 and the defect-inspecting apparatus. Then, the review SEM selects desired foreign material or defect and moves the sample stage into a position specified by the preliminary inspection information. See Column 18, line 11-21.

Regarding Claim 8 Inokuchi (960) discloses that FIGS. 74A-74C illustrate SEM images of a foreign material or defect specified by the operator and displayed on the display device D. FIG. 74A shows a condition obtained immediately after the operator makes a designation. FIG. 74B shows a condition in which the foreign material or defect is brought into the center of the viewing screen of the display device D. FIG. 74C shows the image of FIG. 74B on a magnified scale.

When an image shown in FIG. 74A is displayed, the operator moves the center of a crisscross cursor Dk into the center of the foreign material or defect displayed together with the cursor, using a mouse. Then, he clicks on the left button. The sample stage (not shown) moves a distance corresponding to the amount of movement of the cursor Dk. As a result, the foreign material or defect moves into the center of the viewing screen of the display device D, as shown in FIG. 74B.

Under the condition of FIG. 74B, the image of the foreign material or defect is magnified, thus obtaining an image as shown in FIG. 74C. Then, the operator

observes the displayed foreign material or defect. Thus, he can find the cause or kind of the foreign material or defect in the inspected part, identify the cause of the defect, and make a decision as to whether the defect is fatal. See Column 3, line 62-67; and Column 4, line 1-17.

Conclusion

3. Any inquiry concerning this communication or earlier communications should be directed to Phillip Johnston whose telephone number is (571) 272-2475. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor John Lee can be reached at (571) 272-2477. The fax phone numbers are (703) 872-9318 for regular response activity, and (703) 872-9319 for after-final responses. In addition the customer service fax number is (703) 872- 9317.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.

PJ
January 29, 2004

JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800